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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/817,076 07/15/97 YAMAMOTO

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EXAMINER

LM02/0402

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ART UNIT

PAPER NUMBER

2772

DATE MAILED:

04/02/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/817,076

Applicant(s)
Yamamoto

Examiner
Thu Nguyen

Group Art Unit
2772



☒ Responsive to communication(s) filed on Apr 9, 1997

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 2-9 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 2, 4, and 6-9 is/are rejected.

☒ Claim(s) 3 and 5 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☒ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 3

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2772

DETAILED ACTION

This office action responds to the preliminary amendment submitted on 4/9/97. Claim 1 has been canceled. Claims 2-9 are now pending.

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 250 words. It is important that the abstract not exceed 250 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

2. Claims 4 and 6 are objected to because of the following informalities:

In claim 4, lines 2-10, the disclosed "ground point" is ambiguous and is not defined in the specification. The "ground point" is read as the "center of gravity" as disclosed in the specification page 18, lines 16-17.

Appropriate correction is required.

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Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 4, 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gove (U.S Patent No. 5,491,510).

As per claim 1, Gove teaches a virtual image generation apparatus which comprises:

Shape data means for storing shape data pertaining to physical objects (claim 1, lines 6-8; col.1, lines 13-18; col.2, lines 66-67 and col.3, lines 1-4);

Position data specification means for specifying position data for an object (col.4, lines 24-27);

Gove does not explicitly teach an overlap determination means which determines whether a subject and a physical object are overlapped and generating virtual image using a show-through or non-show-through processing. However, since Gove teaches displaying a computer generated image of a subject which is obscured by a physical object (claim 1, lines 9-18; claim 15 and col.4, lines 28-40), Gove inherently teaches an overlapped determining means as claimed.

Further, Gove teaches that when the processor determines that the distance from the viewer and the relative position and perspective to the viewer of the subject are the same as the physical object, the processor generates a signals to display the show-though objects (claim 1). It

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would have been obvious to a person of ordinary skill in the art at the time that when the processor does not generate the overlapping signal the apparatus taught by Gore would not display overlapping images. Further, displaying non-overlapping images (non-show-through images) would have been well known to a person of ordinary skill in the art at the time the invention was made.

As per claim 4, since Gore teaches a processor which generates signals when the physical object and the subject have the same distance, relative position and perspective to the viewer (claim 1), Gore inherently teaches comparing the displacement from a ground point of the subject and the physical object to decide overlapping condition as claimed.

As per claim 6-7, since Gore teaches displaying the overlapping virtual image of the subject and the physical object (claim 1), Gore inherently teaches displaying computer generated image representing the subject and the display data is the alternate data of the virtual image of the subject and the physical object.

As per claim 8-9, refer to discussion in claim 1 above. The claimed method and recording medium are the extent of the claimed system above.

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Allowable Subject Matter

5. Claims 3 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

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or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308-6606 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal
Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Nguyen whose telephone number is (703) 306-9130. The examiner can normally be reached on Monday-Thursday from 8:00 am to 5:00 pm ET.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Powell, can be reached on (703) 305-9703. The fax phone number for this Group is (703)308-6606 .

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703)305-3900.

NTV

March 25, 1999


MARK R. POWELL
SUPERVISORY PATENT EXAMINER
GROUP 2700